

RECEIVED
CENTRAL FAX CENTER

APR 16 2009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ulrich FRIEDRICH	Confirmation No. 8886
Application No.: 09/929,703	Art Unit: 2611
Filed: 13 Aug 2001	Examiner: Aghdam, F. N.
Title: METHOD FOR TRANSMITTING A PLURALITY OF INFORMATION SYMBOLS	
Attorney Docket No.: 1000/0252PUS1	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPLICANT'S APPEAL BRIEF

Dear Sir:

A Notice of Appeal was filed in the above application on November 21, 2008, with a Request for Pre-Appeal Brief Review. A Notice of Panel Decision from Pre-Appeal Brief Review dated March 16, 2008, indicated that at least one actual issue for appeal was found to exist and that the application should proceed to the Board of Patent Appeals and Interferences. Applicant is filing this Appeal Brief within one month of the date of the Notice of Panel Decision together with the required fee.

I. REAL PARTY IN INTEREST

The real party in interest in the above-captioned application is Atmel Germany GmbH as shown by the assignment recorded at patent Reel 012081 Frame 0203 on August 13, 2001.

04/17/2009 VBUI11 00000057 09929703

01 FC:1402

540.00 0P

Application No. 09/929,703

II. RELATED APPEALS AND INTERFERENCES

There are no prior or pending appeals, interferences or judicial proceedings known to appellant, the appellant's legal representatives or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-3, 5, 7, 10, 13, 14 and 16-33 are pending in the subject application. Claims 1-3, 5, 7, 10, 13, 14 and 16-33 are rejected, and the rejections of claim 1-3, 5, 7, 10, 13, 14 and 16-33 and 18 are being appealed.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER**A) Claim 1**

Claim 1 recites a method for transmitting a plurality of different information symbols between a first transceiver and a second transceiver by modulating a carrier signal (page 5, lines 7-8). A different modulation index is assigned to each one of the different information symbols, each of the information symbols conveys different type data, and the modulation indices identify a type of the conveyed data based on an amplitude of the amplitude modulation index (Figure 1; page 1, lines 12-14; page 3, lines 1-10). At least one characteristic physical variable of the carrier signal is modulated in

Application No. 09/929,703

accordance with the different modulation indices assigned respectively to the different information symbols that are modulated onto the carrier signal to produce a modulated signal (page 3, lines 5-7). The modulated signal is transmitted from the first transceiver to the second transceiver, and the second transceiver evaluates the modulated signal to obtain the conveyed different types of data (page 3, lines 19-22 and 26-32).

B) Claim 13

Claim 13 recites a method for transmitting a plurality of different information symbols between a first transceiver and a second transceiver by modulating a carrier signal (page 5, lines 7-8). A different modulation index is assigned to each one of the different information symbols (page 5, lines 8-12). At least one characteristic physical variable of the carrier signal is amplitude modulated in accordance with the different modulation indices assigned respectively to the information symbols that are modulated onto the carrier signal (page 3, lines 5-7). At least one of the different information symbols includes data for a control signal for setting a data rate for a data transmission of the modulated carrier signal by the first transceiver (page 5, lines 20-26), and the modulation index including the data of the control signal is smaller than the modulation index of a data signal formed by others of the different information symbols (page 7, lines 22-25).

C) Claim 16

Claim 16 recites a method of producing and transmitting a modulated information signal from a first device to a second device (page 5, lines 7-8) that includes defining

Application No. 09/929,703

plural different information symbols (page 5, lines 7-8) and assigning plural different modulation indices respectively individually to each of the different information symbols, where the modulation indices differ from one another (page 5, lines 8-12). The method also includes representing information items, which are to be transmitted, with the information symbols such that the modulation indices respectively assigned to each of the different information symbols identify the information items based on an amplitude of each of the modulation indices (page 5, lines 8-9; page 3, lines 5-7). The method also includes modulating the different information symbols onto a carrier signal which comprises modulating a characteristic physical parameter of the carrier signal in accordance with the different modulation indices respectively assigned to the information symbols, to produce a modulated information signal (page 3, lines 1-7). The method also includes transmitting the modulated information signal from the first device to the second device (page 1, lines 7-9), and in the second device, evaluating the modulated information signal to obtain the information items and additional information (page 3, lines 19-22 and 26-32).

D) Claim 33

Claim 33 recites a method of transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal (page 5, lines 7-8). The method includes assigning an amplitude modulation index to a first information symbol of the plurality of information symbols, where the first information symbol conveys a first type of data, and where the amplitude modulation index identifies a type of the conveyed data of the first information symbol based on an

Application No. 09/929,703

amplitude of the amplitude modulation index (page 5, lines 8-9; page 3, lines 5-7). The method also includes assigning a different amplitude modulation index and a different period length of a modulation period to a second information symbol of the plurality of information symbols (page 5, lines 31-35). The second information symbol conveys a second type of data different from the first type, and the different amplitude modulation index and the different period length of the modulation period identify a type of the conveyed data of the second information symbol based on an amplitude of the different amplitude modulation index (page 5, lines 8-12). The method also includes modulating at least one characteristic physical variable of the carrier signal in accordance with the different amplitude modulation index assigned respectively to each of the plurality of information symbols that are modulated onto the carrier signal to produce a modulated signal (page 3, lines 5-7), transmitting the modulated signal from the first transceiver to the second transceiver (page 1, lines 7-9), and evaluating the modulated signal at the second transceiver to obtain the conveyed data (page 3, lines 19-22 and 26-32).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 2, 7, 16, 17, 20-22, 24, 25, 30, 32 and 33¹ are properly rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,404,755 (hereinafter, "Schafer").

Whether claims 18 and 19 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of U.S. Patent Publication No. 2002/0172160

¹ Claim 13 is not mentioned in this rejection, but reasons for rejecting claim 13 are provided in the discussion of reasons for rejecting these other claims. It is therefore assumed that claim 13 also stands rejected as being anticipated by Schafer, and the rejection of claim 13 as being anticipated by Schafer is another ground of rejection that is to be reviewed on appeal.

Application No. 09/929,703

(hereinafter, "Mousley").

Whether claim 10 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of U.S. Patent No. 4,794,649 (hereinafter, "Fujiwara").

Whether claim 14 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of Fujiwara and further in view of U.S. Patent No. 6,463,039 (hereinafter, "Ricci").

Whether claim 31 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of Ricci.

Whether claim 26 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of U.S. Patent No. 6,570,842 (hereinafter "Landolsi").

VII. ARGUMENT

- A) Claims 1, 2, 7, 16, 17, 20-22, 24, 25, 30, 32 and 33
Are Not Anticipated by Schafer

Claim 1

Claim 1 stands rejected under 35 U.S.C. 103(a) as being anticipated by Schafer. Claim 1 recites, inter alia, a method for transmitting a plurality of different information symbols by modulating a carrier signal. In this method, a different modulation index is assigned to each one of the different information symbols, and each of the information symbols conveys different type data. The modulation indices identify a type of the conveyed data. Schafer discloses a method in which data is transmitted using quadrature amplitude modulation. The information density transmitted by Schafer is

Application No. 09/929,703

adjusted from 4-QAM to 256-QAM depending on distance and transmission conditions, such as weather. Schafer also indicates that in one embodiment, control information is transmitted using 4-QAM.

The examiner rejects claim 1 on the basis that Schafer's use of different QAM modulation densities for payload data and control data satisfies the limitation of claim 1 regarding a modulation index identifying a type of the conveyed data. Presumably, the examiner is arguing that 4-QAM modulation "identifies" control data while 16-QAM modulation "identifies" payload data. It is respectfully submitted that the modulation index used by Schafer in no manner identifies the type of data being transmitted. For example, under poor weather conditions, all data may be transmitted using 4-QAM modulation. If 4-QAM modulation identified the data as control data, Schafer's system would interpret all data received as control data. Clearly, this is not the case. Therefore, something other than the modulation index must be used by Schafer to identify the type of information being transmitted. Schafer does not show or suggest different modulation indices identifying different data types as recited in claim 1, and claim 1 distinguishes over Schafer for at least this reason.

Claim 1 further distinguishes over Schafer by reciting that a different modulation index is assigned to each one of a plurality of different symbols. No symbols identified by different modulation indices have been identified in Schafer. Schafer teaches that under poor transmission conditions all information is transmitted with 4-QAM modulation. This would suggest that Schafer is transmitting only one "symbol." Under other conditions, 16-QAM and 4-QAM modulation might be used, but this does not suggest that only two symbols are transmitted. The 16-QAM information of Schafer presumably includes more

Application No. 09/929,703

useful data than merely one symbol of data. Schafer's communication between radio links is different than communication between two transceivers as claimed, and there is no basis for referring to "symbols" identified by modulation indices in Schafer. Claim 1 further distinguishes over Schafer for this reason.

Claims 2 and 32

Claims 2 and 32 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

Claim 7

Claim 7 depends from claim 1 and is submitted to be allowable for at least the same reasons as claim 1. Claim 7 further recites that period lengths of modulation periods differ from one another to define additional information symbols. The examiner refers to Figure 7 to support the rejection of claim 7, but Figure 7 merely shows different types of data that are transmitted in a given burst period. It will be assumed *arguendo* that the "ramp," "preamble," "control channel" etc. disclosed in Figure 7 have different lengths, although this is not shown by Schafer. However, the lengths of these periods in no manner define additional information symbols. Nothing in Schafer suggests, for example, that the length of the preamble is measured and used for any purpose; instead, it appears to be the information contained in the preamble that is used by Schafer's system. Schafer in no manner shows modulation period lengths being used to define information symbols, and claim 7 further distinguishes over Schafer for this reason.

Application No. 09/929,703

Claim 13

Claim 13 recites a method for transmitting a plurality of different information symbols between a first transceiver and a second transceiver by modulating a carrier signal. In the method, a different modulation index is assigned to each one of the different information symbols. Schafer does not disclose information symbols each having a different modulation index. Under this interpretation, when Schafer uses 4-QAM modulation for data due to transmission conditions and also sends control signals using 4-QAM modulation, only one information symbol is apparently present. It does not make sense to refer to Schafer's entire 4-QAM transmission as an "information symbol" under any reasonable interpretation of this phrase. Schafer does not show a plurality of information symbols each having a different modulation index, and claim 13 is submitted to be allowable over Schafer for at least this reason.

Claim 16

Claim 16 recites a method of producing and transmitting a modulated information signal from a first device to a second device that includes, inter alia, assigning plural different modulation indices respectively individually to each of the different information symbols, said modulation indices being different from one another. Claim 16 also recites representing information items, which are to be transmitted, with the information symbols, and that the modulation indices respectively assigned to each of the different information symbols identify the information items based on an amplitude of each of the modulation indices. As discussed above in connection with claim 1, Schafer does not assign different

Application No. 09/929,703

modulation indices to different information symbols. Instead, Schafer uses different QAM modulation schemes based on transmission conditions and may sometimes send control information using 4-QAM. Furthermore, Schafer does not show or suggest different information symbols having different modulation indices. Schafer does not show at least these limitations of claim 16, and claim 16 is submitted to be allowable for at least this reason.

Claims 17, 20-22, 24, and 25

Claims 17, 20-22, 24 and 25 depend from claim 16 and are submitted to be allowable for at least the same reasons as claim 16.

Claim 30

Claim 30 depends from claim 16 and is submitted to be allowable for at least the same reasons as claim 16. Claim 30 further recites that at least one of the different information symbols represents a control signal, and that the method includes receiving the control signal in the modulated information signal in a second device and controlling the second device responsively to the control signal. The examiner appears to argue that Schafer's control channel satisfies the above limitation. However, it is respectfully submitted that the control channel does not comprise an information symbol that controls a second device. Instead, whatever information is transmitted in the control channel causes a receiver to operate in a certain manner. The control channel is not an information symbol as recited in claim 30, and claim 30 is submitted to further distinguish over Schafer for this reason.

Application No. 09/929,703

Claim 33

Claim 33 recites a method of transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal. The method includes assigning an amplitude modulation index to a first information symbol, and the first information symbol conveys a first type of data. The amplitude modulation index identifies a type of the conveyed data of the first information symbol based on an amplitude of the amplitude modulation index. Claim 33 also recites assigning a different amplitude modulation index and a different period length of a modulation period to a second information symbol. The second information symbol conveys a second type of data different from the first type, and the different amplitude modulation index and the different period length identify a type of the conveyed data of the second information symbol based on an amplitude of the different amplitude modulation index.

Schafer discloses the use of different QAM modulation schemes. However, the modulation scheme is selected by Schafer based on transmission conditions and does not identify a type of information being transmitted. Even in the embodiment wherein control information is transmitted using 4-QAM modulation, this modulation scheme does not identify the type of information being transmitted. This is because Schafer shows that other information can also be transmitted using 4-QAM modulation. In such a case, if 4-QAM modulation identified the type of information transmitted, Schafer's receiver would interpret all signals being received as controls signals. This is not what is disclosed in Schafer.

Application No. 09/929,703

In addition, Schafer does not show an information symbol having a different amplitude modulation index and a different period length of modulation period. Schafer transmits information, but does not transmit information symbols that are distinguished based on amplitude modulation index. For at least these reasons, claim 33 is submitted to be allowable over Schafer.

B) Claims 18 and 19 Patentably Distinguish Over Schafer in View of Mousley

Claim 18

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer in view of Mousley. Claim 18 depends from claim 16. Mousley does not address the shortcomings of Schafer discussed above in connection with claim 16, and claim 18 is therefore submitted to be allowable for at least the same reasons as claim 16.

Claim 18 recites that the different information symbols further include a third information symbol, and that the modulation indices further include a third modulation index that differs from the first and second modulation indices and that is assigned to the third information symbol. The examiner acknowledges that these limitation are not taught by Schafer. However, Mousley, specifically, paragraph 0037 of Mousley, is said to provide a reason for modifying Schafer to produce the invention of claim 18.

Paragraph 0037 of Mousley provides, in its entirety:

Since some of the information in the header H will be required by distant secondary stations it will need to be robustly transmitted, with significant redundancy. A solution which reduces the total redundancy is to partition the header blocks with differing levels of coding (or modulation). Two partitions are probably sufficient, where modulation schemes are referred to in one of the partitions (but not both). It may be desirable for the header H to include a length indicator and some error detection, such as CRC.

Application No. 09/929,703

This portion of Mousley in no manner suggests the provision of a third modulation index assigned to a third information symbol as asserted by the examiner. At most, it might suggest partitioning Schafer's header blocks in some manner. However, Schafer does not disclose information symbols as recited in claim 16 or assigning different modulation indices to different information symbols. Mousley does not address these shortcomings of Schafer. Claim 18 is therefore submitted to patentably distinguish over the combination of Schafer and Mousley.

Claim 19

Claim 19 depends from claim 18 and recites a fourth information signal defined by a fourth modulation index. Mousley in no manner suggest providing Schafer with four modulation indices identifying four information symbols. Claim 19 is submitted to patentably distinguish over Schafer in view of Mousley for at least this reason.

C) Claim 10 Patentably Distinguishes Over Schafer in View of Fujiwara

Claim 10 depends from claim 1. Fujiwara does not address the shortcomings of Schafer discussed above in connection with claim 1. Claim 10 is therefore submitted to be allowable for at least the same reasons as claim 1.

Claim 10 recites that in the method of claim 1, the first transceiver controls the second transceiver by at least one control signal, namely, a clock signal assigned to an information symbol. The examiner acknowledges that Schafer does not teach a clock signal assigned to an information signal. However, Fujiwara is cited to show a sync

Application No. 09/929,703

signal being transmitted from a transmitter to a receiver.

The examiner does not explain what modification to Schafer is being proposed based on Fujiwara and therefore the rejection of claim 10 does not satisfy MPEP 706.02(j) which requires the examiner to explain how he proposes to modify the primary reference in order to meet the limitations of a rejected claim. Moreover, Fujiwara appears to suggest nothing more than transmitting a sync signal. There is no suggestion that this clock signal is somehow assigned to an information symbol as defined in claims 1 and 10. Moreover, it is not clear how a QAM receiver can be modified to operate without a clock. The examiner does not mention this part of the limitation in the rejection, does not explain how Schafer can be modified, and Fujiwara contains no teaching that would lead one skilled in the relevant arts to modify Schafer in order to satisfy the limitations of claim 10. Claim 10 is submitted to patentably distinguish over Schafer in view of Fujiwara for at least these reasons.

D) Claim 14 Patentably Distinguishes Over Schafer in View of Fujiwara and Further in View of Ricci

Claim 14 depends from claim 1. Fujiwara and Ricci do not address the shortcomings of Schafer discussed above in connection with claim 1. Claim 14 is therefore submitted to be allowable for at least the same reasons as claim 1.

Claim 14 further recites that the second transceiver has no electronic circuit for clock generation and is a passive transponder that uses the clock signal for local clocking. The examiner does not explain how Fujiwara's sync signal is to be used by Ricci's receiver to generate clock information, and therefore the modification to Schafer based on

Application No. 09/929,703

Fujiwara and Ricci is not clear. The examiner also does not explain how Schafer's receiver for receiving a quadrature amplitude modulated signal can operate without a clock. The rejection does not satisfy the requirements of MPEP 706.02(j) and does not constitute a prima facie case of obviousness. Claim 14 is submitted to be allowable over Schafer, Fujiwara and Ricci for at least this reason.

E) Claim 31 Patentably Distinguishes Over Schafer in view of Ricci

Claim 31 depends from claim 16. Ricci does not address the shortcomings of Schafer discussed above in connection with claim 16. Claim 31 is therefore submitted to be allowable for at least the same reasons as claim 16.

Claim 31 further recites that the second device is a passive transponder that does not include a local clocking signal generator circuit and that the control signal is a clock signal. Claim 31 also recites that controlling the second device comprises controlling a local clocking of the second device in response to the clock signal. The examiner does not explain how Schafer's QAM receiver can function without a clock based only on a signal from a transmitter. Ricci in no manner suggests such a modification to Schafer. Claim 31 is submitted to further distinguish over Schafer and Ricci for this reason.

F) Claim 26 Patentably Distinguishes Over Schafer in Landolsi

Claim 26 depends from claim 16. Landolsi does not address the shortcomings of Schafer discussed above in connection with 16. Claim 26 is therefore submitted to be allowable for at least the same reasons as claim 16.

Application No. 09/929,703

Claim 26 further recites that the different modulation indices give rise to respective different maximum amplitudes and a consistent amplitude modulation swing of the respective information symbols modulated in the modulated information signal. It is not clear what modification to Schafer based on Landolsi is being proposed. Landolsi teaches a different meaning of modulation index. Therefore the examiner appears to be suggesting that Schafer's QAM be replaced with a different modulation. The examiner does not identify the change to Schafer being proposed, does not provide a proper reason for making the change and does not present a prima facie case of obviousness. Moreover, modifying Schafer to work with a different modulation index instead of using QAM would change the principle of operation of Schafer and/or render Schafer unsatisfactory for its intended purpose. MPEP 2143.01 provides that such modifications are not obvious. For these reasons, it is respectfully submitted that a prima facie case of obviousness has not been presented in connection with claim 26 and that claim 26 patentably distinguishes over Schafer in view of Landolsi.

CONCLUSION

Wherefore, reconsideration and allowance of claims 1-3, 5, 7, 10, 13, 14 and 16-33 is earnestly solicited.

Date: 09-16-09

Muncy, Geissler, Olds & Lowe, PLLC
PO BOX 1364
Fairfax, VA 22038-1364

Respectfully Submitted,



Martin R. Geissler
Attorney/Agent for Applicant(s)
Reg. No. 51011

Application No. 11/081,543

VIII. CLAIMS APPENDIX

1. A method for transmitting a plurality of different information symbols between a first transceiver and a second transceiver by modulating a carrier signal, wherein

a different modulation index is assigned to each one of the different information symbols, each of the information symbols conveying different type data, and the modulation indices identifying a type of the conveyed data based on an amplitude of the amplitude modulation index,

at least one characteristic physical variable of the carrier signal is modulated in accordance with the different modulation indices assigned respectively to the different information symbols that are modulated onto the carrier signal to produce a modulated signal, and

the modulated signal is transmitted from the first transceiver to the second transceiver, and the second transceiver evaluates the modulated signal to obtain the conveyed different types of data.

2. The method according to claim 1, wherein, alongside the frequency and phase, the amplitude (A) is modulated as the characteristic physical variable of the carrier signal.

3. The method according to claim 1, wherein the n th information symbol is transmitted with a time-shift from the $(n+1)$ th information symbol.

5. The method according to claim 1, comprising simultaneously transmitting a selected

Application No. 11/081,543

one (n) of the different information symbols and a subsequent one (n+x) of the information different symbols that follows the selected one of the different information symbols.

7. The method according to claim 1, wherein not only the modulation indices but also respective period lengths of modulation periods differ respectively from one another to define additional information symbols.

10. The method according to claim 1, wherein the first transceiver controls the second transceiver by at least one control signal, being a clock signal assigned to an information symbol.

13. A method for transmitting a plurality of different information symbols between a first transceiver and a second transceiver by modulating a carrier signal, wherein

a different modulation index is assigned to each one of the different information symbols,

at least one characteristic physical variable of the carrier signal is amplitude modulated in accordance with the different modulation indices assigned respectively to the information symbols that are modulated onto the carrier signal, and

at least one of the different information symbols includes data for a control signal for setting a data rate for a data transmission of the modulated carrier signal by the first transceiver, and the modulation index including the data of the control signal is smaller than the modulation index of a data signal formed by others of said different information

Application No. 11/081,543

symbols.

14. The method according to claim 10, wherein the second transceiver has no electronic circuit for clock generation and is a passive transponder that uses the clock signal for local clocking.

16. A method of producing and transmitting a modulated information signal from a first device to a second device, comprising the steps:

- a) defining plural different information symbols;
- b) assigning plural different modulation indices respectively individually to each of said different information symbols, wherein said modulation indices differ from one another;
- c) representing information items, which are to be transmitted, with said information symbols, wherein said modulation indices respectively assigned to each of said different information symbols identify said information items based on an amplitude of each of said modulation indices;
- d) modulating said different information symbols onto a carrier signal, comprising modulating a characteristic physical parameter of said carrier signal in accordance with said different modulation indices respectively assigned to said information symbols, to produce a modulated information signal;
- e) transmitting said modulated information signal from said first device to said second device; and
- f) in said second device, evaluating said modulated information signal to obtain

Application No. 11/081,543

said information items and additional information.

17. The method according to claim 16, wherein said different information symbols include first and second information symbols, and said modulation indices include first and second modulation indices that differ from one another and that are respectively assigned to said first and second information symbols.

18. The method according to claim 17, wherein said different information symbols further include a third information symbol, and said modulation indices further include a third modulation index that differs from said first and second modulation indices and that is assigned to said third information symbol.

19. The method according to claim 18, wherein said different information symbols further include a fourth information symbol, and said modulation indices further include a fourth modulation index that differs from said first, second and third modulation indices and that is assigned to said fourth information symbol.

20. The method according to claim 17, wherein said first and second information symbols respectively have different durations relative to one another.

21. The method according to claim 17, wherein said first and second information symbols respectively have different numbers and/or different patterns of modulation pulses relative to one another.

Application No. 11/081,543

22. The method according to claim 16, wherein said different modulation indices respectively have predefined modulation index values that differ from one another by predefined differences that can be detected and differentiated between by said second device.

23. The method according to claim 16, wherein said information symbols respectively having said different modulation indices assigned thereto respectively represent different types of said information items that are to be transmitted, and said additional information represented by said different modulation indices respectively identifies said different types of said information items.

24. The method according to claim 16, wherein said characteristic physical parameter of said carrier signal being modulated in said step d) comprises a frequency or a phase of said carrier signal.

25. The method according to claim 16, wherein said characteristic physical parameter of said carrier signal being modulated in said step d) comprises an amplitude of said carrier signal.

26. The method according to claim 25, wherein said different modulation indices give rise to respective different maximum amplitudes and a consistent amplitude modulation swing of said respective information symbols modulated in said modulated information

Application No. 11/081,543

signal.

27. The method according to claim 16, wherein said information symbols are modulated in succession respectively in successive time intervals one after another in said modulated information signal.

28. The method according to claim 16, further comprising defining an additional information symbol and modulating said additional information symbol onto said carrier wave simultaneously with at least a selected one of said information symbols defined in said step a) by superimposing said additional information symbol thereon in said modulated information signal.

29. The method according to claim 16, wherein said step d) comprises modulating said information symbols successively in respective successive time intervals onto said carrier signal, with one or more of said successive time intervals respectively defining respective successive signal periods bounded between field gaps in said modulated information signal, and

further comprising defining further information symbols that are respectively assigned respective ones of said signal periods having respective different time durations and that represent further information in said signal periods having said different time durations.

30. The method according to claim 16, wherein at least one of said different

Application No. 11/081,543

information symbols represents a control signal, and further comprising receiving said control signal in said modulated information signal in said second device and controlling said second device responsively to said control signal.

31. The method according to claim 30, wherein said second device is a passive transponder that does not include a local clocking signal generator circuit, wherein said control signal is a clock signal, and said controlling of said second device comprises controlling a local clocking of said second device in response to said clock signal.

32. The method according to claim 1, wherein the additional information identifies respective data types of the respective data conveyed by the information symbols.

33. A method of transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal, the method comprising:

assigning an amplitude modulation index to a first information symbol of the plurality of information symbols, wherein the first information symbol conveys a first type of data, and wherein the amplitude modulation index identifies a type of the conveyed data of the first information symbol based on an amplitude of the amplitude modulation index;

assigning a different amplitude modulation index and a different period length of a modulation period to a second information symbol of the plurality of information symbols, wherein the second information symbol conveys a second type of data different

Application No. 11/081,543

from said first type, and wherein the different amplitude modulation index and the different period length of the modulation period identifies a type of the conveyed data of the second information symbol based on an amplitude of the different amplitude modulation index;

modulating at least one characteristic physical variable of the carrier signal in accordance with the different amplitude modulation index assigned respectively to each of the plurality of information symbols that are modulated onto the carrier signal to produce a modulated signal;

transmitting the modulated signal from the first transceiver to the second transceiver; and

evaluating the modulated signal at the second transceiver to obtain the conveyed data.

Application No. 11/081,543

IX. EVIDENCE APPENDIX

(None)

Application No. 11/081,543

X. RELATED PROCEEDINGS APPENDIX

(None)